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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,393

08/27/2003

Kenichi Mitsumori

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7590 03/12/2007
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EXAMINER

STINSON, FRANKIE L

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/650,393

Applicant(s)

MITSUMORI ET AL.

Examiner

FRANKIE L. STINSON

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-19 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-19 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1746

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-19 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Lemelson (U. S. Pat. No. 3,154,890) or Schulze (U. S. Pat. No. 2,873,391) in view of either Baird (U. S. Pat. No. 4,183,007) or Eppes (U. S. Pat. No. 4,764,021).

Re claim 27, Lemelson and Schulze (fig. 6) are each cited disclosing a wet treatment nozzle comprising:

an ultrasonic cleaner comprising a housing, an ultrasonic transducer (16 in Lemelson, 28 in Schulze) placed on a bottom surface of the housing,

an introduction passage (18 in Lemelson, 28 in Schulze) for introducing a treatment liquid on a side of the ultrasonic cleaner;

an exhaust passage (19 in Lemelson, 32 in Schulze) which exhausts the treatment liquid on an other side of the ultrasonic cleaner after a wet treatment of an object to be treated, the exhaust passage exhausting the treatment liquid that wet treated the object;

wherein the ultrasonic cleaner, while vibrating, guides the treatment liquid to wet treat the object to be treated,

wherein a pressure controller (col. 3, lines 50-64 in Lemelson and col. 2, lines 24-24, in Schulze, the pressure is "varied" and also col. 3, lines 36-46) is controlled to maintain a difference of the treatment liquid so that the treatment liquid wet treats only a portion of the object to be treated to which the treatment liquid is supplied that differs from the claim only in the recitation of the weight on the housing with the weight minimizing propagation of energy from the ultrasonic transducer to a wall of the housing by shifting the characteristic frequency of the wall of the housing. The patents to Baird and Eppes are each cited disclosing transducer, where the transducers are provided with a weight, (16 in Baird and see col. 2, lines 14-17 in Eppes). It therefore would have been obvious to one having ordinary skill in the art to modify the ultrasonic cleaner in either Lemelson or Schulze, to include a weight as taught by either Baird or Eppes for the purpose of increasing the efficiency and stability of the transducer and the efficacy of the sonic wave transmission since it is old and known in the art to remove parasitic/interfering waves. Re claims 16-19, to position the weight at various locations, or to have the same of different including wall thickness (size), is deemed to be an obvious matter of design in view of the corresponding structure in either Baird or Eppes. This is considered to be a mere rearrangement of parts and a change in size (see MPEP 2144.04 REVERSAL, DUPLICATION OR REARRANGEMENT OF PARTS and MPEP 2144.04, CHANGES IN SIZE, SHAPE, OR SEQUENCE OF ADDING INGREDIENTS). Re claim 28, Schulze discloses the shape. Re claim 29, the same is deemed to be inherent in Lemelson and Schulze as proposedly modified. Re claim 30, Lemelson and Schulze disclose only the treatment liquid contacts the object to be

treated at the portion of the object to be treated to which the treatment liquid is supplied.

Re claim 31, Lemelson and Schulze disclose the ultrasonic cleaner guides the treatment liquid introduced from the introduction passage such that fresh treatment liquid is always supplied to the object to be treated.

3. In view of the fact that the Lemelson and Schulze reference have been previously used (as in the office Action dated June 14, 2005) the remarks in response thereto have been fully considered but they are not persuasive. Applicant argues that the Lemelson and Schulze fail to disclose the pressure controller maintaining a pressure differential as claimed. Nonetheless, it is noted that the operation of the controller as claimed is deemed to be statement of function and of little patentable weight in view of the corresponding function of the systems of either Lemelson or Schulze. Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959).

“ [A]pparatus claims cover what a device is, not what a device does.”

Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). (emphasis in original). As instantly claimed, and like that in Lemelson and Schulze, the pressure of the treatment fluid controlled/varied to ensure that only a portion of the object to be treated is wetted.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In Madison et al., Joy, Osgood, Conway, Balamuth et al., and Bodine, note the .

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (572) 272-1308. The examiner can normally be reached on M-F from 5:30 am to 2:00 pm and some Saturdays from approximately 5:30 am to 11:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached on (571) 272-1700. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

fls



FRANKIE L. STINSON
Primary Examiner
GROUP ART UNIT 1746